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3636

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/758,762	<b>Applicant(s)</b> SEO, DONG WOOG	
	<b>Examiner</b> Tamara L. Graysay	<b>Art Unit</b> 3636	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 and 27 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:  
         1. ☒ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>(1 page)</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 17 January 2003. It is noted, however, that applicant has not filed a certified copy of the Korean application as required by 35 U.S.C. 119(b).

### *Drawings*

2. The drawings are objected to because of the following:
- a. Reference character 28' at the top of FIG. 12 should be 128' for consistency.
  - b. Reference character 78" (three occurrences) at the end posts in FIG. 16 appear to be single hook mounting brackets 78, not 78" opposing double hook mounting brackets. The same reference character should be used for the same element throughout the specification and drawings.
  - c. They fail to comply with 37 CFR 1.84(l) because every line (FIGS. 1-16) is not sufficiently dense and dark, and uniformly thick and well-defined.
  - d. They fail to comply with 37 CFR 1.84(u)(2) because the view numbers are not larger than the numbers used for reference characters.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because of the following informalities:

a. Page 6, line 25, [canopy frame 100] should be canopy frame 10 for consistency with the rest of the specification and drawings.

b. Page 16, the paragraph beginning on line 31, [side rail assembly 11, 11' or 11"] (three occurrences) should be side rail assembly 11, 11', 11" and 11''' for consistency.

Appropriate correction is required.

***Claim Objections***

5. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

In the present application, although claim 16 is separated from claim 9 by claims 10-15 which do not depend upon claim 9, applicant's sequence has not been changed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-13, 15-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suh (US-6478039) in view of Leung (US-5056291).

a. Claim 1: Suh discloses a side rail assembly (12) for a canopy having a plurality of uprights (17), the side rail comprising: a side rail (12) having a first end and a second end; and a mounting bracket (13) mounted on a corresponding one of the uprights (17), wherein the mounting bracket comprises a first side rail connector (21) having a post (bolt 31) to secure the side rail to the mounting bracket.

Suh lacks the hook attached to the first end of the side rail, but instead Suh utilizes an aperture through which the post extends in order to secure the side rail to the mounting bracket.

Leung teaches a quick release system for securing two structural members together. One structural member includes a post (e.g., 20b, 21b, 24b in FIGS. 9-10) and the other structural member includes a hook (e.g., 30 in FIG. 13) that engages the post to secure the structural members together. Such an arrangement permits the elements to be taken apart without the use of special tools.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the side rail of Suh to include a hook, such as suggested by

the Leung hook, in order to permit the elements to be taken apart without the use of special tools.

b. Claim 2: The Suh mounting bracket (13) comprises a body (see FIG. 3) and a cover (23) pivotally connected to the body, wherein the body and the cover (23) together define an opening (27) that receives said corresponding one of the uprights (17).

c. Claim 3: The Suh cover (23) pivots between an open position (position A depicted in dashed lines in FIG. 3) and a closed position (position B depicted in solid lines in FIG. 3), such that in the open position the mounting bracket receives into the opening (27) the corresponding one of the uprights (17) and in the closed position the mounting bracket is frictionally secured to a side surface (by means of aperture (unnumbered) that receives the detent (36) therein, as depicted in FIG. 3) of the corresponding one of the uprights (17).

d. Claim 4: The Suh detent (36) “presses against the side surface” as broadly recited insofar as the detent engages the aperture in the side surface of the upright.

e. Claim 5: The Suh cover (23) comprises a locking member (wedge 25, incline 30, bolt 31, nut 35) that lockingly engages a portion of the body (unnumbered) to lockingly connect the cover (23) to the body when the cover (23) is in the closed position, i.e., the

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“mating” wedge 25 and the incline portion 30 (3:40-55) are lockingly connected via the bolt 31 and nut 35.

f. Claim 6: The Suh cover (23) comprises a detent (wedge 25 and nut 35) that lockingly engages a protrusion (incline 30 and bolt 31) of the body when the cover is in the closed position (position B).

g. Claim 7: The Suh cover (23) has an opening (aperture in the nut 35) through which the protrusion (bolt 31) extends when the cover is in the closed position (position B).

h. Claims 8-10: In the Suh and Leung combination, the Leung hook (30) includes a first arm (to the left of post 20 in FIG. 13) and a second arm (to the right of post 20 in FIG. 13) that together define a recess (unnumbered) such that the recess receives the post 20 when the hook is engaged with the post (e.g., FIG. 13 of Leung), and that when the hook receives the post the recess in the hook receives the post (e.g., as depicted in FIG. 13) and the first (to the left of the post 20 in FIG. 13) and second arms (to the right of the post 20 in FIG. 13) are disposed in a surrounding relation to the post (e.g., FIG. 13).

The Suh first side rail connector (21) extends from a first side wall (just below reference character 30 in FIG. 30), and wherein the post (bolt 31) and the first side wall of the body together define a hook opening (at the location of reference character 30 in FIG. 3) that would receive a first arm (as described above with regard to Leung) of the

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hook when the hook is engaged with the post (in a manner similar to the engagement depicted in FIG. 13 of Leung).

i. Claim 11: The Suh mounting bracket (13) comprises a second side rail connector (22) having a post (unnumbered, located in the dashed lines representing the aperture in the second side rail connector). As noted with regard to claim 1 above, it would have been obvious to further modify the Suh and Leung combination to include a hook end on the second side rail in the same manner and for the same reasons as set forth with regard to claim 1 above.

j. Claims 12-13: The Suh first (21) and second (22) side rail connectors are offset from each other by an offset angle of 90 degrees (FIG. 3) such that the first and second side rails (12) are offset from each other when engaged in the first and second side rail connectors, respectively.

k. Claim 15: In the Suh and Leung combination, the hook opening of the second side rail connector is between the dashed lines representing the aperture that receives the post (bolt, not shown) and the second wall of the body in FIG. 3 of Suh, the hook opening would receive a first arm (as described above with regard to Leung) of the hook when the hook of the second side rail is engaged with the post (in a manner similar to the engagement depicted in FIG. 13 of Leung).



l. Claim 16: In the Suh and Leung combination, the Leung hook (30) includes a first arm (to the left of post 20 in FIG. 13) and a second arm (to the right of post 20 in FIG. 13) that together define a recess (unnumbered) such that the recess receives the post 20 when the hook is engaged with the post (e.g., FIG. 13 of Leung), and that when the hook receives the post the recess in the hook receives the post (e.g., as depicted in FIG. 13) and the first (to the left of the post 20 in FIG. 13) and second arms (to the right of the post 20 in FIG. 13) are disposed in a surrounding relation to the post (e.g., FIG. 13).

In the Suh and Leung combination, the Suh mounting bracket (13) comprises a second side rail connector (22) having a post (unnumbered, located in the dashed lines representing the aperture in the second side rail connector), wherein a hook on the second side rail engages the post of the second rail connector, as described with regard to claim 9 above and the engagement of the first side rail hook to the first rail connector.

m. Claim 17: Suh discloses a side rail assembly (12) for a canopy having a plurality of uprights (17), the side rail comprising: a side rail (12) having a first end and a second end; and a mounting bracket (13) mounted on a corresponding one of the uprights (17), wherein the mounting bracket comprises a first side rail connector (21) having a post (bolt 31) to secure the side rail to the mounting bracket. The Suh mounting bracket (13) comprises a body (see FIG. 3) and a cover (23) pivotally connected to the body, wherein the body and the cover (23) together define an opening (27) that receives said corresponding one of the uprights (17). The Suh cover (23) pivots between an open position (position A depicted in dashed lines in FIG. 3) and a closed position (position B

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depicted in solid lines in FIG. 3), such that in the open position the mounting bracket receives into the opening (27) the corresponding one of the uprights (17) and in the closed position the mounting bracket is frictionally secured to a side surface (by means of aperture (unnumbered) that receives the detent (36) therein, as depicted in FIG. 3) of the corresponding one of the uprights (17).

Suh lacks the hook attached to the first end of the side rail, but instead Suh utilizes an aperture through which the post extends in order to secure the side rail to the mounting bracket.

Leung teaches a quick release system for securing two structural members together. One structural member includes a post (e.g., 20b, 21b, 24b in FIGS. 9-10) and the other structural member includes a hook (e.g., 30 in FIG. 13) that engages the post to secure the structural members together. Such an arrangement permits the elements to be taken apart without the use of special tools.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the side rail of Suh to include a hook, such as suggested by the Leung hook, in order to permit the elements to be taken apart without the use of special tools.

n. Claim 18: The Suh detent (36) “presses against the side surface” as broadly recited insofar as the detent engages the aperture in the side surface of the upright.

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- o. Claim 19: The Suh cover (23) comprises a locking member (wedge 25, incline 30, bolt 31, nut 35) that lockingly engages a portion of the body (unnumbered) to lockingly connect the cover (23) to the body when the cover (23) is in the closed position, i.e., the “mating” wedge 25 and the incline portion 30 (3:40-55) are lockingly connected via the bolt 31 and nut 35.
- p. Claim 20: The Suh cover (23) comprises a detent (wedge 25 and nut 35) that lockingly engages a protrusion (incline 30 and bolt 31) of the body when the cover is in the closed position (position B).
- q. Claim 21: The Suh cover (23) has an opening (aperture in the nut 35) through which the protrusion (bolt 31) extends when the cover is in the closed position (position B).
- r. Claims 22-24: In the Suh and Leung combination, the Leung hook (30) includes a first arm (to the left of post 20 in FIG. 13) and a second arm (to the right of post 20 in FIG. 13) that together define a recess (unnumbered) such that the recess receives the post 20 when the hook is engaged with the post (e.g., FIG. 13 of Leung), and that when the hook receives the post the recess in the hook receives the post (e.g., as depicted in FIG. 13) and the first (to the left of the post 20 in FIG. 13) and second arms (to the right of the post 20 in FIG. 13) are disposed in a surrounding relation to the post (e.g., FIG. 13).

The Suh first side rail connector (21) extends from a first side wall (just below reference character 30 in FIG. 30), and wherein the post (bolt 31) and the first side wall of the body together define a hook opening (at the location of reference character 30 in FIG. 3) that would receive a first arm (as described above with regard to Leung) of the hook when the hook is engaged with the post (in a manner similar to the engagement depicted in FIG. 13 of Leung).

s. Claim 25: The Suh mounting bracket (13) comprises a second side rail connector (22) having a post (unnumbered, located in the dashed lines representing the aperture in the second side rail connector). As noted with regard to claim 17 above, it would have been obvious to further modify the Suh and Leung combination to include a hook end on the second side rail in the same manner and for the same reasons as set forth with regard to claim 17 above.

t. Claims 26-27: The Suh first (21) and second (22) side rail connectors are offset from each other by an offset angle of 90 degrees (FIG. 3) such that the first and second side rails (12) are offset from each other when engaged in the first and second side rail connectors, respectively.

u. Claim 29: In the Suh and Leung combination, the hook opening of the second side rail connector is between the dashed lines representing the aperture that receives the post (bolt, not shown) and the second wall of the body in FIG. 3 of Suh, the hook opening

would receive a first arm (as described above with regard to Leung) of the hook when the hook of the second side rail is engaged with the post (in a manner similar to the engagement depicted in FIG. 13 of Leung).

v. Claim 30: In the Suh and Leung combination, the Leung hook (30) includes a first arm (to the left of post 20 in FIG. 13) and a second arm (to the right of post 20 in FIG. 13) that together define a recess (unnumbered) such that the recess receives the post 20 when the hook is engaged with the post (e.g., FIG. 13 of Leung), and that when the hook receives the post the recess in the hook receives the post (e.g., as depicted in FIG. 13) and the first (to the left of the post 20 in FIG. 13) and second arms (to the right of the post 20 in FIG. 13) are disposed in a surrounding relation to the post (e.g., FIG. 13).

In the Suh and Leung combination, the Suh mounting bracket (13) comprises a second side rail connector (22) having a post (unnumbered, located in the dashed lines representing the aperture in the second side rail connector), wherein a hook on the second side rail engages the post of the second rail connector, as described with regard to claim 23 above and the engagement of the first side rail hook to the first rail connector.

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7. Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suh (US-6478039) and Leung (US-5056291) as applied to claims 12 and 26 above, and further in view of Ruppel (US-2001215).

Ruppel teaches a connector for 90- and 180-degree arrangements for rails (18, 22) that are arranged perpendicularly and axially. The particular arrangement would have been within the level of ordinary skill in the art depending upon the particular application of the side rail connector, i.e., 90-degree perpendicular arrangement or 180 degree axially aligned arrangement.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Suh and Leung combination as applied to claims 12 and 26, respectively, above, to include a 180 degree offset angle, such as suggested by the 180 degree offset angle of Ruppel, in order to accommodate side rails that are axially aligned.

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8. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suh (US-6478039) and Leung (US-5056291) as applied to claim 17 above, and further in view of Delp (US-2897013).

Delp teaches a structural member for a collapsible frame that is comprised of a plurality of sections (E.1, E.2) connected together via a support connector (10b). The sections and connector enable the frame to be collapsed to a shorter dimension for transporting and/or storing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Suh and Leung combination to include side rails having a plurality of side rail sections connected together via a support connector, such as taught by the Delp collapsible frame, in order to enable the frame to be collapsed to a shorter dimension for transporting and/or storing.

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9. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suh (US-6478039) in view of Leung (US-5056291) and further in view of Carter (US-6041800).

Suh discloses a collapsible canopy frame (frame 19, 1:5-10) comprising: uprights (17); a set of edge scissor assemblies (depicted in FIG. 1) that are pivotally coupled between adjacent uprights, each set of edge scissor assemblies having ribs that rotate relative to each other (inherent in the edge scissor assemblies of Suh); a side rail (12) having a first end and a second end; a mounting bracket (13) mounted to one of the uprights, wherein the mounting bracket comprises a first side rail connector (21) having a post (bolt 31).

Suh lacks the hook attached to the first end of the side rail, but instead Suh utilizes an aperture through which the post extends in order to secure the side rail to the mounting bracket.

Leung teaches a quick release system for securing two structural members together. One structural member includes a post (e.g., 20b, 21b, 24b in FIGS. 9-10) and the other structural member includes a hook (e.g., 30 in FIG. 13) that engages the post to secure the structural members together. Such an arrangement permits the elements to be taken apart without the use of special tools.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the side rail of Suh to include a hook, such as suggested by the Leung hook, in order to permit the elements to be taken apart without the use of special tools.



Suh is collapsible, however, the specification is silent as to whether the uprights are telescoping.

Carter teaches telescoping uprights (FIG. 7-8) for a collapsible canopy frame having a set of edge scissor assemblies. The telescoping uprights allow the frame to be collapsed to a dimension shorter than the height of the assembled frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Suh and Leung combination to include telescoping uprights, such as suggested by Carter, in order to permit the frame to be collapsed to a smaller dimension.

***Conclusion***


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Harrison (US-744194) teaches a side rail having a hook (H) and an upright (A) having a post (D) (FIG. 1, 2).
- Thompson (US-1808082) teaches a straight-sided hook recess (FIG. 4) at the end of a support member.
- Lynch (US-5244001) teaches a 90 and 180-degree connection for structural members of a collapsible canopy frame.
- Kemeny (US-6553698) teaches post (90, 24) and hook (28, 68) connections (e.g., FIG. 9A, 9B, 10A, 10B, 10C, 10D).
- Carletti (US-6758354) teaches post (58, 80) and hook 86, 88) connections (e.g., FIG. 2, 6, 7, 8).
- Layher (GB-2167479) teaches a hook (5) for engaging two structural elements.
- Sprague (US-5215108) teaches substitution of a removable hook and slot for a pivot joint on a collapsible frame (FIG. 5).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Cuomo, can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 1/21/06  
Tamara L. Graysay  
Examiner  
Art Unit 3636